

## MSSRP Mentor List - Summer 2024

The first stage of the MSSRP application process is to research a few mentors whose work interests you, and to ask Marie Mizer ([mxm1826@case.edu](mailto:mxm1826@case.edu)) to help you get in contact with those mentors.

1. Please use the information below as a jumping-off point for your own research on mentors you may want to work with.
2. You should utilize the CWRU, UH, and/or Cleveland Clinic websites to get more details of what each mentor is researching.
3. You should utilize PubMed and browse the list of publications for mentors you are interested in working with.
4. We encourage you to consider basic and translational research in addition to clinical research.

Mentors by category:

<b>GROUP 1: <u>Digestive Diseases</u></b>	<b>GROUP 2: <u>Liver Diseases</u></b>	<b>GROUP 3: <u>Diabetes &amp; Metabolic Diseases</u></b>	<b>GROUP 4: <u>Kidney Diseases</u></b>
Derek Abbott, MD PhD	J. Mark Brown, PhD	David Buchner, PhD	Walter Boron, MD, PhD
Fabio Cominelli, MD PhD	Srinivasan Dasarathy, MD	Atul Chopra, MD	Leslie Bruggeman, PhD
Wendy Goodman, PhD	Maria Hatzoglou, PhD	Darcy Freedman, PhD	Katherine Dell, MD
Andrei Ivanov, PhD	Feng Lin, PhD	Rose Gubitosi-Klug, MD PhD	Christopher Flask, PhD
Jeanette Messer, DVM PhD*	Takuya Sakaguchi, MD	Grace McComsey, MD	Stanley Hazen, MD, PhD
Theresa Pizarro, PhD	Gail Cresci		John O'Toole, MD
Florian Rieder, MD PhD	Danny Manor		Mahboob Rahman, MD
Alex Rodriguez-Palacios, PhD DVM*	<b>Pierre Gholam*</b>		Jeffrey Schelling, MD
Vinay Varadan, PhD*			John Sedor, MD
Rui Wang, PhD			Jonathan Stamler, MD
Philip Ahern			
Mahmoud Ghannoum			
Ganapati Mahabaleshwar			
<b>Aaron Burberry*</b>			
<b>Abigail Basson*</b>			
<b>Luca Di Martino*</b>			
<b>Andrew Blum*</b>			

<b>GROUP 5: <u>GI &amp; Liver Tumorigenesis</u></b>	<b>GROUP 6: <u>Inflammation/Infection</u></b>
Amitabh Chak, MD	Donald Anthony, Jr, MD, PhD
Gregory Cooper, MD MPH	Robert Bonomo, MD
Amar Desai, PhD*	Sahera Dirajjal-Fargo, MS DO*
Kishore Guda, PhD	Curtis Donskey, MD
Zhenghong Lee, MD	Craig Hodges, PhD
Anant Madabhushi, PhD	Alan Levine, PhD
Sanford Markowitz, MD PhD	Laura Nagy, PhD
Gordon McLennan, MD*	Parameswaran Ramakrishnan, PhD
Zhenghe Wang, PhD	Carlos Subauste, MD
Agata Exner	Gregory Tochtrop
Anant Madabhushi	<b>Michelle Longworth*</b>
<b>Carlos De Salvo*</b>	
Rui Wang, PhD	

\* Junior faculty mentors, paired with a senior mentor with a strong-track record of mentorship to ensure the highest level of training.

Mentor research interests:

<b>Faculty Research &amp; Case MSSRP T35 Mentoring Group 1 : Digestive Diseases</b>
<b>DEREK ABBOTT, MD, PhD</b> , Professor of Pathology, CWRU SoM; MSTP T32 Program Director; <b>Research:</b> Mechanisms of NOD2 activation Crohn's disease (CD)
<b>FABIO COMINELLI, MD, PhD</b> , Hermann Menges, Jr. Professor of Medicine & Pathology, Chief, Division of GI & Liver Diseases, CWRU SoM; Director, Case MSSRP T35; Co-Director, Digestive Diseases T32 (NIDDK); <b>Research:</b> Role of cytokines & gut microbiota in IBD

<b>WENDY GOODMAN, PhD</b> , Instructor of Pathology, CWRU SoM; <b>Research:</b> Regulatory T-cells in CD
<b>ANDREI IVANOV, PhD</b> , Staff Scientist, Department of Inflammation & Immunity, Cleveland Clinic LRI; Professor of Molecular Medicine, CCLCM-CWRU; <b>Research:</b> Actomyosin cytoskeleton & intestinal barrier dysfunction in IBD
<b>JEANNETTE MESSER, DVM, PhD*</b> , Assistant Staff Scientist, Department of Inflammation & Immunity, Cleveland Clinic LRI; Adjunct Assistant Professor of Molecular Medicine, CCLCM-CWRU; <b>Research:</b> HMGB1 in IBD
<b>THERESA PIZARRO, PhD</b> , Professor of Pathology & Medicine, CWRU; Case MSSRP T35 Co-Director; <b>Research:</b> Mucosal immunity
<b>FLORIAN RIEDER, MD, PhD</b> , Assistant Professor (Medicine), CCLCM/CWRU SoM; <b>Research:</b> Gut Microbiome-induced Intestinal Fibrosis
<b>ALEXANDER RODRIGUEZ-PALACIOS, PhD, DVM</b> , Assistant Professor of Medicine (GI & Liver Diseases), CWRU SoM; <b>Research:</b> Mouse models of intestinal inflammation
<b>VINAY VARADAN, MD</b> , Assistant Professor of General Medical Sciences (Oncology), CWRU SoM; <b>Research:</b> Integrative analysis of large-scale molecular profiling datasets to identify novel biomarkers & therapeutic targets
<b>RUI WANG, PhD</b> , Assistant Professor of Surgical Oncology, & Pathology, CWRU SOM; <b>Research:</b> Immune-regulation roles of NPTX2 in inflammatory bowel diseases (IBD).

<b>Faculty Research &amp; Case MSSRP T35 Mentoring Group 2 : Liver Diseases</b>
<b>J. MARK BROWN</b> , Associate Staff Scientist, Cardiovascular Disease & Metabolic Sciences, Cleveland Clinic LRI, Assistant Professor of Molecular Medicine, CCLCM-CWRU; <b>Research:</b> Gut bacterial metabolite TMAO in host stress response to insulin resistance
<b>SRINIVASAN DASARATHY</b> , Staff Scientist, Department of Inflammation & Immunity, Cleveland Clinic LRI; Professor of Molecular Medicine, CCLCM-CWRU; <b>Research:</b> Mechanisms of sarcopenia in cirrhosis; clinical research in non-alcoholic steatohepatitis
<b>MARIA HATZOGLU, PhD</b> , Professor of Nutrition & Pharmacology, CWRU SoM; <b>Research:</b> Molecular mechanisms regulating gene expression during nutrient stress
<b>FENG LIN, PhD</b> , Staff Scientist, Department of Inflammation & Immunity, Cleveland Clinic LRI; Professor of Molecular Medicine, CCLCM-CWRU; <b>Research:</b> Complement activation to improve diabetes
<b>TAKUYA SAKAGUCHI, PhD</b> , Associate Staff, Department of Inflammation & Immunity, Cleveland Clinic LRI; Assistant Professor of Molecular Medicine, CCLCM-CWRU; <b>Research:</b> Biliary system formation; nonalcoholic steatohepatitis using a zebrafish model

<b>Faculty Research &amp; Case MSSRP T35 Mentoring Group 3 : Diabetes &amp; Metabolic Diseases</b>
<b>J. MARK BROWN</b> , Associate Staff Scientist, Cardiovascular Disease & Metabolic Sciences, Cleveland Clinic LRI, Assistant Professor of Molecular Medicine, CCLCM-CWRU; <b>Research:</b> Gut bacterial metabolite TMAO in host stress response to insulin resistance
<b>ATUL CHOPRA, MD, PhD</b> , Assistant Professor of Medicine (Cardiology), CWRU SoM; <b>Research:</b> Asprosin neutralization as an anti-obesity treatment
<b>DARCY FREEDMAN, PhD, MPH</b> , Associate Professor of Epidemiology & Biostatistics, CWRU SoM; <b>Research:</b> Nutritional interventions & obesity
<b>ROSE GUBITOSI-KLUG, MD, PhD</b> , Professor of Pediatrics (Endocrinology) & Associate Professor of Pharmacology, CWRU SoM; <b>Research:</b> Epidemiology of long-term type I diabetes

**GRACE McCOMSEY, MD**, Professor of Pediatrics & Division Chief of Pediatric Infectious Diseases/Rheumatology, CWRU SoM; **Research:** Gut integrity markers after HIV infection & metabolic complications

**Faculty Research & Case MSSRP T35 Mentoring Group 4: Kidney Diseases**

**WALTER BORON, MD, PhD**, David N. & Inez Myers/Antonio Scarpa Professor & Department Chair of Physiology & Biophysics, CWRU SoM; **Research:** RTPT- $\delta$  in acid-base disturbances in renal proximal tubes

**LESLIE BRUGGEMAN, PhD**, Professor of Medicine (Nephrology & Hypertension), CWRU SoM; **Research:** Molecular and cellular biology of chronic kidney diseases

**KATHERINE DELL, MD**, Staff Scientist, Pediatric Nephrology, Cleveland Clinic Pediatric Institute; Professor of Pediatrics (Nephrology), CCLCM-CWRU; **Research:** Imaging of ARPKD in kidney disease

**CHRISTOPHER FLASK, PhD**, Assistant Professor of Radiology, Pediatrics & Biomedical Engineering, CWRU SoM and School of Engineering; **Research:** Imaging of ARPKD in kidney disease

**STANLEY HAZEN, MD, PhD**, Van Bleeksma Chair of Vascular Cell Biology & Artherosclerosis, Cleveland Clinic LRI; Professor of Molecular Medicine, CCLCM-CWRU; **Research:** Diet-induced gut microbiota-mediated pathways & chronic kidney disease

**JOHN O'TOOLE, MD**, Staff Scientist, Department of Inflammation & Immunity, Cleveland Clinic LRI; Associate Professor of Molecular Medicine, CCLCM-CWRU & CWRU SoM; **Research:** Genetics of human kidney disease

**MAHBOOB RAHMAN, MD**, Professor of Medicine (Nephrology & Hypertension), CWRU SoM; **Research:** Predictors of chronic renal insufficiency progression

**JEFFREY SCHELLING, MD**, Professor of Medicine (Nephrology & Hypertension), CWRU SoM; **Research:** Mechanisms of chronic kidney disease in diabetes

**JOHN SEDOR, MD**, Staff Scientist, Department of Inflammation & Immunity, Cleveland Clinic LRI; Professor of Physiology & Biophysics, CWRU SoM; **Research:** Nephropathy susceptibility genes and kidney disease

**JONATHAN STAMLER, MD**, Robert S. and Sylvia K. Reitman Family Foundation Distinguished Chair and Professor of Medicine & Professor of Biochemistry, CWRU SoM; **Research:** S-nitrosylation in renal function

**Faculty Research & Case MSSRP T35 Mentoring Group 5: GI & Liver Tumorigenesis**

**AMITBAH CHAK, MD**, Professor of Medicine (GI & Liver Diseases) & Oncology, CWRU SoM; **Research:** Barrett's esophagus (BE) & esophageal adenocarcinoma, novel endoscopic imaging techniques

**GREGORY COOPER, MD**, Professor of Medicine (GI & Liver Diseases); **Research:** Screening & surveillance for colorectal cancer (CRC)

**AMAR DESAI, PhD**, Assistant Professor, Case Comprehensive Cancer Center, CWRU SoM; **Research:** 15-PGDH in improving bone marrow transplantation

**KISHORE GUDA, PhD**, Associate Professor of Medicine, CWRU SoM; **Research:** Genetics of colon & esophageal cancer

**ZHENGHONG LEE, PhD**, Professor of Radiology & Associate Professor of Biomedical Engineering, CWRU SoM; **Research:** Imaging technologies for liver cancer proliferation

**ANANT MADABUSHI, PhD**, F. Alex Nason Professor II of Biomedical Engineering, Professor of Pathology, Radiation Oncology, Radiology & Urology, CWRU SoM; **Research:** Quantitative image analysis & multi-modal correlation of large data sets for disease diagnostics and prognostics of GI cancers

**SANFORD MARKOWITZ, MD, PhD**, Frances Wragg Ingalls Professor of Cancer Genetics, Genetics & Genome Sciences, & Molecular Biology & Microbiology, CWRU SoM; **Research:** Immunogenetics of CRC

**GORDON McLENNAN, MD**, Professor of Pathology & Urology, Division Chief of Anatomic Pathology, CWRU SoM; **Research:** Genitourinary pathology

**ZHENGHE WANG, PhD**, Dale H. Cowan M.D. & Ruth Goodman Blum Professor of Cancer Research & Professor of Genetics & Genome Sciences, CWRU SoM; **Research:** Metabolic programming in CRC

**Faculty Research & Case MSSRP T35 Mentoring Group 6: Inflammation/Infection**

**DONALD ANTHONY, Jr, MD, PhD**, Associate Professor of Medicine (Infectious Diseases & HIV) & Pathology, CWRU SoM; HIV T32 Program Director; **Research:** Immune cell function during hepatitis C virus infection;

**ROBERT BONOMO, MD**, Professor of Medicine, Pharmacology, Molecular Biology & Microbiology, CWRU SoM; **Research:** Genetic determinants of  $\beta$ -lactamases

**SAHERA DIRAJLAL-FARGO, MS, DO**, Assistant Professor, Department of Pediatrics, CWRU SoM; **Research:** Pediatric HIV complications, inflammation & immune activation

**CURTIS DONSKEY, MD**, Professor of Medicine (Infectious Diseases & HIV), CWRU SoM; **Research:** Mechanisms used by normal intestinal microflora to inhibit colonization by nosocomial pathogens

**CRAIG HODGES, PhD**, Associate Professor of Genetics & Genome Sciences; **Research:** CFTR gene function & mouse models of cystic fibrosis

**Alan Levine, PhD**, Professor, Department of Molecular Biology and Microbiology, School of Medicine, **Research** : Intestinal Host Defense: Toggling between immune tolerance and immune protection

**LAURA E. NAGY, PhD**, Staff Scientist, Department of Inflammation & Immunity, Cleveland Clinic LRI; Professor of Physiology & Biophysics, CWRU; Professor of Molecular Medicine, CCLCM-CWRU; **Research:** Alcohol-induced chronic hepatitis & diabetes

**PARAMESWARAN RAMKRISHNAN, PhD**, Assistant Professor of Pathology & Biochemistry, CWRU SoM; **Research:** Signal transduction in autoimmunity & immunometabolism in type-1 diabetes & inflammation-induced colon cancer; **T35 Trainees:** Dr. Ramakrishnan was provisional mentor at the request of **Angela Lui** (2019), who investigated the role of NF- $\kappa$ B c-Rel and OGIcNAcylation in autoimmune diabetes, and is now a T35 secondary faculty mentor.

**CARLOS SUBAUSTE, MD, PhD**, Professor of Medicine (Infectious Diseases & HIV Medicine), Ophthalmology & Pathology, CWRU SoM; **Research:** CD40 in immune responses to pathogens; diabetic inflammation; uses transgenic diabetic mouse